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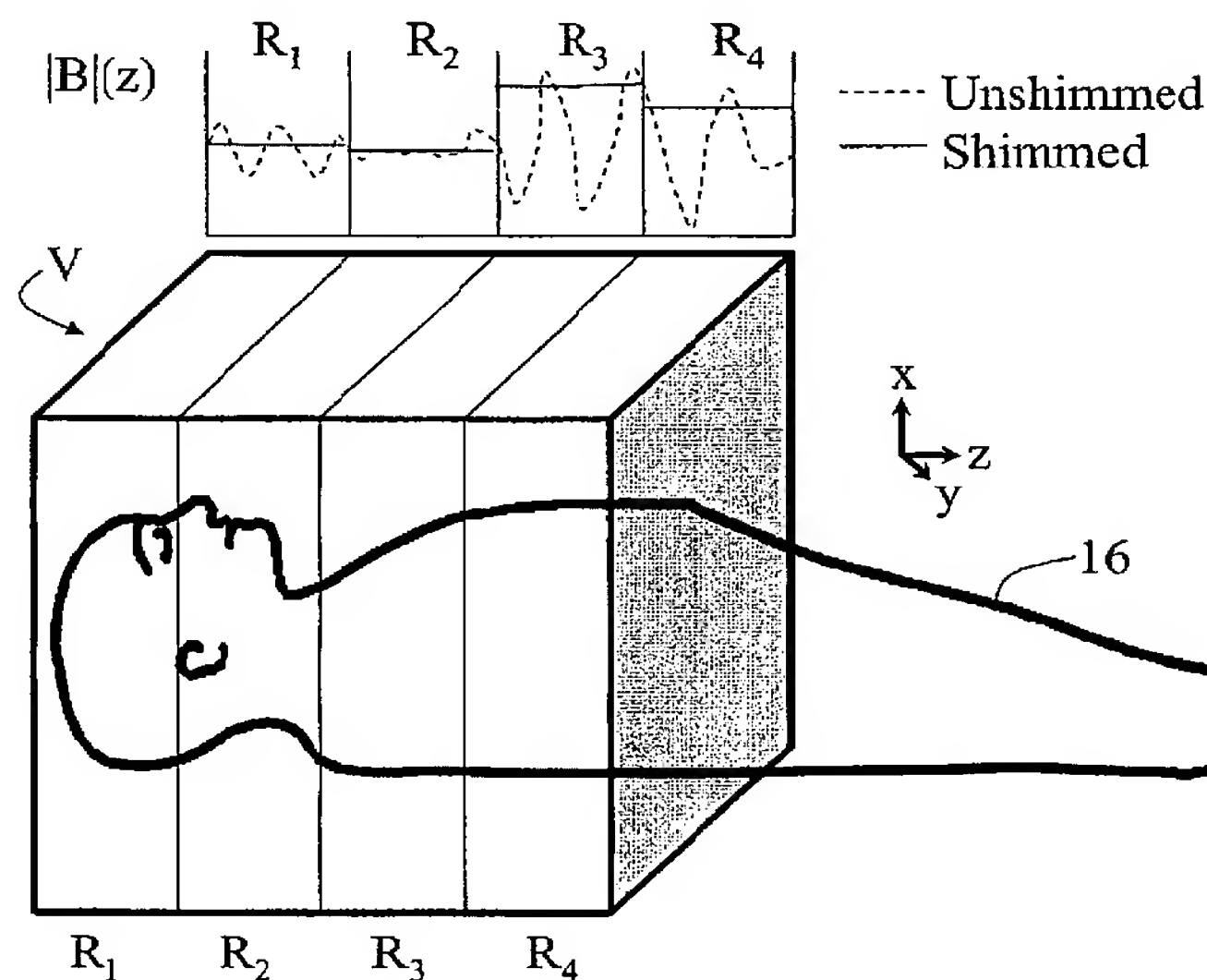
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(54) Title: DYNAMIC SHIMSET CALIBRATION FOR  $B_0$  OFFSET



(57) Abstract: A magnetic resonance imaging method comprising: determining a magnitude shift of a main  $B_0$  magnetic field responsive to energizing one or more shim coils (60) at selected shim currents; energizing the one or more shim coils (60) at the selected shim currents; and performing a correction during the energizing to correct for the determined magnitude shift of the main  $B_0$  magnetic field. Wherein the determining a magnitude shift comprises: computing one or more Maxwell terms of the magnetic field produced by energizing the one or more coils (60) at selected shim currents; and determining the magnitude shift of the main  $B_0$  magnetic field based on the computed one or more Maxwell terms.

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